

ing the Prism, I found two or three little Bubbles in the Glass which refracted the Light irregularly. Wherefore I covered that part of the Glass with black Paper, and letting the Light pass through another part of it which was free from such Bubbles, the Spectrum of Colours became free from those irregular Streams of Light, and was now such as I desired. But still I found the Violet so dark and faint, that I could scarce see the Species of the Lines by the Violet, and not at all by the deepest part of it, which was next the end of the Spectrum. I suspected therefore that this faint and dark Colour might be allayed by that scattering Light which was refracted, and reflected irregularly partly by some very small Bubbles in the Glasses and partly by the inequalities of their Polish: which Light, tho' it was but little, yet it being of a White Colour, might suffice to affect the Sense so strongly as to disturb the Phænomena of that weak and dark Colour the Violet, and therefore I tried, as in the 12th, 13th, 14th Experiments, whether the Light of this Colour did not consist of a sensible mixture of heterogeneous Rays, but found it did not. Nor did the Refractions cause any other sensible Colour than Violet to emerge out of this Light, as they would have done out of White Light, and by consequence out of this Violet Light had it been sensibly compounded with White Light. And therefore I concluded, that the reason why I could not see the Species of the Lines distinctly by this Colour, was only the darkness of this Colour and Thinness of its Light, and its distance from the Axis of the Lens; I divided therefore those Parallel Black Lines into equal Parts, by which I might readily know the distances of the Colours in the Spectrum from one another, and noted the distances of the Lens from the Foci of such Colours as cast the Species of the Lines

Lines distinctly, the difference of those distances, the greatest difference of the deepest Red from the deepest Violet as the distance of the end of the Spectrum from the end of the Violet measured in the Spectrum, that is, the length of the Spectrum, observations were a

When I observed the Colour of the Spectrum at that rectilinear distance half the length of the Spectrum of Green and Blue on the Paper, where the Red cast the shadow 2 $\frac{1}{4}$ Inches. For sometimes a line was cast another above $\frac{1}{2}$ Inch to define the Places of the Lines. Now if the Colours (measured at its distance) of the distances of the Colours distant the difference of those

But here it's to be noted that the full End of the Semicircle of the Spectrum is not the same as the Colour which was excluded by the confine of Green and Blue, a little more to the